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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHANG, ANNAN Q

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 11/17/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/310,091

Applicant(s)

PARK, YONG-SEOK

Examiner

Annan Q Shang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-14 and 17-21 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 15, 16, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 4, 5, 12-13 and 20 are objected to because of the following informalities:
In claim 4, lines 2, claim 5, lines 2, 3 and 5, claim 12, line 2, claim 13, lines 3 and 5 and claim 20, lines 2, 3 and 5, it appears the phrase "repeater" should read "channel."
Appropriate correction is required.

Response to Arguments

2. Applicant's arguments filed 06/13/03 have been fully considered but they are not persuasive. With respect to claims 1-3, 9-11 and 17-19, Examiner has reapplied the prior art of record **Chaney (5,841,433)**, in a different way to more clearly meet the claimed limitations. With respect to independent claims 1, 9 and 18, of the instant office action, Applicant argues that there is no disclosure or suggestion in Chaney reference of "determining a channel information of being changed."

In response, Examiner disagrees, since the process performed by the Microcontroller 706 or Processor 606 of IRD or STR 612, in checking the Master Program Guide (MPG) status byte repeatedly (col. 3, lines 58-65 and col. 7, line 59-col. 8, line 21) at the end of every five minutes interval or at any preset time interval, to see if the content or channel information of the MPG just received (but not stored) is changed from the currently stored MPG, and updating accordingly, meets the claimed limitation of "determining a channel information of being changed" and "updating the channel information," since by checking the status byte for a condition, the

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Microcontroller 706 or Processor 606, determines a condition and performs the necessary functions accordingly.

Applicant further argues that Chaney fails to explicitly teach adding and deleting channels. In response, Examiner disagrees since adding and deleting channel(s) is not a claimed limitation in the independent claims and furthermore updating or changing channel information as so claimed by applicant, is not the same as adding and deleting channel(s).

With respect to claims 2-3, 10-11 and 18-19, Chaney further discloses determining by analyzing that MPG status byte, which determines a particular version, such as newly or updated version of the MPG, "a version of the received broadcasting signal" and updates the changes accordingly (fig. 9, col. 3, lines 66-col. 4, line 14 and col. 6, line 36-col. 7, line 30), a process which involves parsing Program Information Segment Map "PAT information" from a transport stream and checking a version number in the parsed Channel to Service Segment Map and Program Information Segment Map to determine the version changes (fig. 9, col. 3, lines 66-col. 4, line 14 and col. 6, line 36-col. 7, line 30).

With respect to claims 4-5, 12-13 and 20, Chaney fails to explicitly teach storing the changed channel information, if it is determined that the channel is switched and storing the changed channel information if it is found that the channel is not changed and maintaining existing channel information if it is found that the channel is changed. This claimed limitation, however, has been rejected as U.S.C. 103(a) as unpatentable

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over Chaney in view of **Ivanyi (6,286,140)**, since Ivanyi teaches storing changes in channel information, when a channel is switched and not switched.

With respect to claims 6, 14 and 21, Chaney further fails to explicitly teach storing EPG on a first and second database, however the claims are rejected as unpatentable over Chaney in view of **Eyer et al (6,400,242)**, since Eyer teaches two database for storing IPG data.

Claims 7-8, 15-16 and 22-23, are objected to as being dependent upon a rejected base claims, since the Chaney, Ivanyi, Eyer and the cited references, do not explicitly teach or suggest checking added or canceled channel, and updating the channel information upon completion of the channel check. This office action is non-final.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 9-11 and 17-19 rejected under 35 U.S.C. 102(e) as being anticipated by **Chaney (5,841,433)**.

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As to claim 1, note the **Chaney** reference figures 8 and 9, discloses a digital television system channel guide having a limited lifetime and further discloses a method for changing channel information in a digital TV receiver, the method comprising:

the claimed "determining a channel information of being changed from a broadcasting signal received at every preset time interval..." and "comparing the stored changed channel information and channel information stored already, for updating..." are met by Processor (Pro) 606 of Set-top Receiver (STR) 612 or Microcontroller (Mic-C) 706 of IRD (figs. 6, 7, col. 6, lines 36-67 and col. 7, line 59-col. 8, line 21), note that Pro 606 of STR 612 or Mic-C 706 of IRD, receives and stores in RAM 709, Master Program Guide (MPG) (col. 3, lines 58-65) which includes "channel information.." and Program Guide (PG) status byte (i.e., the "change number" byte), where Pro 606 or Mic-C 706 checks or determines repeatedly at the end of every five minutes "preset time" interval to see if the content or channel information such as, scheduled time, operator error, etc., (col. 4, lines 3-8) of the MPG just received (but not yet stored) is changed from the content of the currently stored MPG and if so the newly received MPG is loaded "updating..." into the memory for immediate use and if not the newly received MPG is discarded (col. 3, line 66-col. 4, line 14), note that in addition to using the MPG status byte indicating the remaining lifetime of MPG to update channel information, Chaney further teaches where the head end operator transmits "emergency guide" or special guide to correct errors in channel information, and where the STR 612 or IRD receives the broadcasting signal, determines a channel information is being changed and updates the channel information accordingly (col. 6, lines 5-23).

As to claim 2, Chaney further discloses a method where the determining step further comprises determining by analyzing that MPG status byte "a version of the received broadcasting signal" of being changed and update the change accordingly (fig. 9, col. 3, lines 66-col. 4, line 14 and col. 6, line 36-col. 7, line 30) note that MPG includes a status byte for determining the version of the MPG.

As to claim 3, Chaney further discloses a method where determining a version change of the received broadcasting signal comprises parsing Program Information Segment Map "PAT information" from a transport stream and checking a version number in the parsed Channel to Service Segment Map and Program Information Segment Map to determine the version change (fig. 9, col. 3, lines 66-col. 4, line 14 and col. 6, line 36-col. 7, line 30), note that Pro 606 or Mic-C 706 checks the MPG status byte by comparing the stored MPG and the newly received, but not stored MPG and determines, based on the status byte, the version changed and updates the MPG by storing the change accordingly.

As to claim 9, note the **Chaney** reference figures 8 and 9, discloses a digital television system channel guide having a limited lifetime and further discloses method for changing channel information in a digital TV receiver (IRD Receiver), the method comprising:

the claimed "determining, at preset time intervals, whether channel information has been changed...", "storing a recent version of the channel information...", and "updating the channel information by comparing the stored recent version of the channel information with previously version..." are met by Microcontroller (Mic-C) 706 (fig. 7, 9,)

(fig. 9, col. 7, lines 4-30 and col. 8, lines 14-21), note that IRD Receiver includes Mic-C 706, which checks or determines, at every 5 minutes "preset time intervals" (col. 7, lines 24-30) whether channel information such as, scheduled time, operator error, etc., (col. 4, lines 3-8) stored in RAM 709 has been changed by analyzing the 30 minutes lifetime status byte of the MPG (col. 4, lines 8-14), and if so the program advances to acquire a new MPG, if not at every 5 minutes a determination is made to see if the newly received MPG has changed from the currently-stored MPG and if so the program acquires and stores the new MPG, that is the recent version of the channel information, note that in addition to using the MPG status byte indicating the remaining lifetime of MPG to update channel information; Chaney further teaches where the head end operator transmits "emergency guide" or special guide to correct errors in channel information, and where the STR 612 or IRD receives the broadcasting signal, determines a channel information is being changed and updates the channel information accordingly (col. 6, lines 5-23).

Claim 10 is met as previously discussed with respect to claim 2.

Claim 11 is met as previously discussed with respect to claim 3.

Claim 17 is met as previously discussed with respect to claim 3.

As to claim 18, note the **Chaney** reference figures 8 and 9, discloses a digital television system channel guide having a limited lifetime and further a computer program embodied on a computer-readable medium for changing channel information in a digital TV receiver (IRD Receiver), performing the steps of:

the claimed "determining, at preset time intervals, whether channel information has been changed...", "storing a recent version of the channel information...", and "updating the channel information by comparing the stored recent version of the channel information with previously version..." are met by Microcontroller (Mic-C) 706 (fig. 7, 9,) (fig. 9, col. 7, lines 4-30 and col. 8, lines 14-21), note that IRD Receiver includes Mic-C 706, which checks or determines, at every 5 minutes "preset time intervals" (col. 7, lines 24-30) whether channel information such as, scheduled time, operator error, etc., (col. 4, lines 3-8) stored in RAM 709 has been changed by analyzing the 30 minutes lifetime byte of the MPG (col. 4, lines 8-14), and if so the program advances to acquire a new MPG, if not at 5 minutes a determination is made to see if the newly received MPG has changed from the currently-stored MPG and if so the program acquires and stores the new MPG, that is the recent version of the channel information, note that in addition to using the MPG status byte indicating the remaining lifetime of MPG to update channel information; Chaney further teaches where the head end operator transmits "emergency guide" or special guide to correct errors in channel information, and where the STR 612 or IRD receives the broadcasting signal, determines a channel information is being changed and updates the channel information accordingly (col. 6, lines 5-23).

Claim 19 is met as previously discussed with respect to claim 3.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-5, 12-13 and 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chaney (5,841,433)** as applied to claims 1, 9 and 19 above and in view of **Ivanyi (6,286,140)**.

As to claim 4-5, Chaney teaches updating channel information or MPG content and storing the changed channel information in RAM 709 and maintained existing channel information or MPG content if MPG is not changed, but fails to explicitly teach storing the changed channel information, if it is determined that the channel is switched and storing the changed channel information if it is found that the channel is not changed and maintaining existing channel information if it is found that the channel is changed.

However, note the **Ivanyi** reference figures 1 and 2, discloses a system for measuring or monitoring and storing information pertaining to a television viewer behavior, where a signal receiving device 1, comprises a monitoring device (col. 5, lines 50-61), for monitoring an occurrence of an events of channel information when the channel is changed or not changed and storing accordingly the changes in the channel information (col. 7, lines 48-58 and col. 9, lines 25-34).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Ivanyi into the system of Chaney to store changes in the channel information when the tuner switches from one channel to the other and account for changes in all the broadcast channels.

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7. Claims 6, 14 and 21, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chaney (5,841,433)** as applied to claims 1, 9 and 19 above, and further in view of **Eyer et al (6,401,242)**.

8. As to claims 6, Chaney teaches a memory such as a RAM for storing the Master Program Guide (MPG) or initial MPG, initial PAT and new or updated MPG, by storing each channel information in RAM 709 to form a first channel list, if it is found that the PAT parsing is the initial PAT parsing as a result of the determination, and clearing the first channel list, and storing the changed channel information in RAM 709, to form a second channel list, if it is found that the PAT parsing is not the initial PAT parsing as a result of the determination (col. 3, line 60-col. 4, line 14, col. 5, line 41-50, col. 6, line 36-col. 7, line 1+), but fails to explicitly teach storing MPG or initial MPG and new or updated MPG on a first and second database.

However, note the **Eyer et al** reference figure 3, disclose an Integrated Receiver Decoders (IRD) 300, which receives Global-IPG data and Local-IPG data and stores in RAM 340/RAM 350, for later retrieval as desired (col. 9, lines 23-30, line 53-col. 10, line 9).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Eyer into the system of Chaney to store PG on two databases, thereby providing a backup during alteration or when updating one of the databases.

Claim 9 is met as previously discussed with respect claim 6.

Claim 19 is met as previously discussed with respect claim 6.

Allowable Subject Matter

9. Claims 7-8, 15-16 and 22-23, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claims 7, 15 and 22, are allowable because the prior art of record Chaney teaches a memory such as a RAM for storing the Master Program Guide (MPG) or initial MPG and new or update MPG storing PMT information in a data base, providing a PMT completion signal, if it is found that the PMT parsing conducted presently is the initial PMT parsing as a result of the determination, if it is found that the PMT parsing conducted presently is not the initial PMT parsing as a result of the determination, storing the changed PMT information in the data base, but Chaney and the cited references, do not explicitly teach or suggest storing MPG or initial MPG, to check added or canceled channel, updating the channel information upon completion of the channel check, and providing a PMT completion signal and new or updated MPG on a first and second database, as so claimed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hwang (6,252,907) discloses demultiplexer and transport decoder employing the same.

Knee et al (6,014,184) disclose electronic television program guide schedule system and method with data feed access.

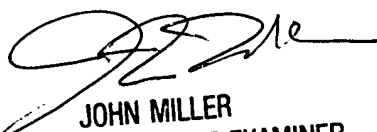
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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q Shang** whose telephone number is **703-305-2156**. The examiner can normally be reached on **700am-500pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W Miller** can be reached on **703-305-4795**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC)** at **866-217-9197 (toll-free)**.

Annan Q. Shang.


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